

# **ABSTRACT**

A traffic concentrator for combining a plurality of digital data streams into at least one higher speed digital data stream is provided. The traffic concentrator includes a plurality of inputs that are adapted to receive the plurality of digital data streams. The traffic concentrator further includes a memory that has first and second portions. The traffic concentrator also includes a control circuit that is coupled to the plurality of inputs and the memory. The control circuit generates control signals for storing data from the plurality of digital data streams in one of the first and second portions of the memory during a first time slot. The control circuit further retrieves the data from the portion of the memory during a subsequent time slot for combination and transmission as the at least one higher speed digital data stream.

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